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Before the Federal Communications Commission

In the Matter of)	
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Review of the Commission's Rules Regarding)	
the Pricing of Unbundled Network Elements)	WC Docket No. 03-173
and the Resale of Service by Incumbent Local)	
Exchange Carriers)	
)	
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DECLARATION OF PATRICK A. GARZILLO

- 1. My name is Patrick A. Garzillo. My business address is 1095 Avenue of the Americas, New York, New York. I am Vice President of Service Costs in the Finance Department at Verizon. The Service Costs organization is responsible for developing costs for services provided by Verizon. As Vice President, I am responsible for managing and supervising the development, preparation and analysis of service cost studies for retail and wholesale products and services, separations, and part 64/cost allocations in all of Verizon's serving areas.
- 2. I have over 30 years of experience with Verizon and its predecessor companies. During this time, I have held a variety of positions of increasing responsibility in various internal functional organizations, including Network Engineering, Service Costs, Carrier Access Services, Special Services Operations, Retail Product Management and Market Management, and Wholesale Market Development for Competitive Local Exchange Carriers.
- 3. I hold a Bachelor of Science degree in Electrical Engineering Technology from the New York Institute of Technology, which I earned in 1969, and a Masters of

Science degree in Management Science from Polytechnic University, which I earned in 1975. In addition, over the past several years I have attended business and educational seminars at Duke University's Fuqua School of Business, University of Pennsylvania's Wharton School of Business, Brookings Institute and Columbia University.

- 4. The purpose of my declaration is to present and explain Verizon's study showing that, in the years since the TELRIC rules were adopted, UNE rates have not permitted Verizon to recover its historical investment in, and the associated operating expenses for, the facilities Verizon uses to provide UNEs to CLECs. Our study focused on the most widely used elements the loop, switching, and transport, which together comprise the UNE-platform, or "UNE-P." In determining Verizon's costs, our study relies on the publicly available investment and operating expense data recorded in Verizon's Automated Reporting Management Information System ("ARMIS") reports filed with the FCC. Attachment A to my declaration provides the data and calculations for New York, Massachusetts, Pennsylvania, and New Jersey. Below, I describe how our study was performed.
- 5. The results of our study show that the UNE rates set by state commissions under TELRIC have produced enormous shortfalls between Verizon's costs and its revenues. In particular, our study calculates the actual shortfall Verizon suffered from 1997 through 2003 as a result of the below-cost UNE rates set by the state commissions using the TELRIC methodology in New York, Massachusetts, Pennsylvania, and New Jersey. Our study demonstrates that, by the end of 2003, Verizon will have suffered a shortfall of over \$2.4 billion in New York, over \$145 million in Massachusetts, over

\$188 million in Pennsylvania, and over \$175 million in New Jersey. Attachment A at 1-2.

- 6. Our study also demonstrates that, if the TELRIC methodology is not reformed, and if the historical growth trends in the volume of UNE loops and UNE-Ps in service in each state that have occurred to date are projected to continue going forward, the shortfall between Verizon's costs and revenues will continue to grow. For example, based on historical growth trends, Verizon will suffer an additional cumulative shortfall of nearly \$2 billion in 2004 and 2005 in New York, and additional shortfalls ranging from over \$135 million to over \$435 million in Massachusetts, Pennsylvania, and New Jersey. Attachment A at 1-2.
- 7. The shortfalls produced by the rates set by state commissions using the TELRIC methodology will have a significant impact on Verizon's net income. For example, in New York, if Verizon leased approximately 2,240,000, or 20%, of its total switched lines as UNE-Ps that is, fewer than 200,000 more UNE-P lines than CLECs leased as of year-end 2002 its net return would drop to zero. Attachment A at 7, 14-19. Similarly, in Massachusetts, if CLECs leased a total of only approximately 13% of Verizon's total switched access lines at the UNE-P rates recently set by the Massachusetts DTE, Verizon's net income would be driven to zero. *Id.* at 7, 14, 15.
- 8. In addition, the rates set by state commissions pursuant to TELRIC do not even allow Verizon to recover its actual forward-looking costs. For example, in New York, based on historical growth trends in the volume of UNE-loop and UNE-P orders, by 2005 the New York PSC's rates will produce an annual shortfall of nearly \$345 million compared to actual forward-looking costs. Attachment C at 1. Similarly, based

on historical growth trends in Massachusetts, by 2005, the DTE's rates will produce a shortfall compared to actual forward-looking costs of over \$55 million. *Id.*

- 9. <u>Historical Cost Study.</u> Our study identifies the historical investment costs and the associated operating costs Verizon incurs in providing UNEs to CLECs on a state by state basis, and the shortfall produced by UNE rates set by state commissions pursuant to the TELRIC methodology.
- 10. Using the investment account data reported in ARMIS, we calculated the total investment associated with each Verizon exchange loop, with the total common transport investment associated with each Verizon exchange loop, and with total switching investment on a per-line basis. We then calculated a capital cost factor and applied this factor to the loop, transport, and switching investments to determine the recurring capital cost for each exchange loop and for switching and common transport per line. These results were divided by twelve to produce the recurring monthly capital costs for loops and switching. We next used the expense account data reported in ARMIS to determine the total annual operating expenses per loop and for switching per line and then divided by twelve to determine monthly expense figures. To calculate the total cost of providing a UNE loop, we added the monthly per-loop operating expenses to the previously calculated monthly per-loop capital costs. Similarly, we calculated the total per-line cost of switching by adding the monthly switching operating expenses to the previously calculated monthly switching capital costs. To calculate Verizon's cost of providing a UNE-P, we added the monthly costs of providing loop, switching, and common transport.

- average per-unit investment for loops, we first identified the accounts that are associated with loop investment, and then divided the investment amounts recorded in each account by the average number of lines in service during 2002. We then summed the resulting per-loop amounts for these investment accounts to determine the total investment per exchange loop. We excluded transport-related investments in those accounts to ensure that the amounts we used included only exchange loop-related investment.
- 12. We followed a similar process to calculate the investment for switching. For each account associated with switching investment, Verizon divided the investment by the average number of switched access lines and then added results for these accounts together in order to determine the per-line investment associated with switching.

 Although some switching costs vary with usage, and therefore should be recovered on a per minute of use basis in order to send correct economic signals, the relevant question for our study is the *average* cost Verizon has already incurred to provide a UNE-P. Accordingly, dividing the switching investment by the number of lines appropriately produces the average switching cost Verizon has incurred per line.
- 13. We next calculated the costs of the transport component of UNE-P. We first identified from ARMIS the interstate transport portion of cable and wire facilities ("C&WF") investment and compared this to the total interstate C&WF investment. We then calculated the percentage that the transport investment represented of total C&WF investment. This percentage was then applied to the C&WF investment "subject to separations" (that is, total regulated interstate plus intrastate investment) to derive a total

transport investment amount. We then divided the resulting figure by the average number of lines in service to arrive at a per-line transport cost.

14. Calculation of Operating Expenses for Each Facility. Operating expenses include both expenses that are specifically related to the particular facility and a share of common expenses. These common expenses are called "non-plant specific" expenses because they do not relate to any particular type of plant. Examples of these expenses are support and common overhead. To calculate the operating expenses associated with loops, we first identified all accounts corresponding solely to loop expenses, and then divided each of these accounts by the average number of lines in service to get an annual per-line loop expense. The annual per-line loop expense was divided by 12 to get a monthly per-line loop expense. We then had to determine how much of the non-plant specific expenses should be attributed to loops. To do this, we calculated the amount of non-plant specific expenses per line by dividing the sum of the amounts recorded in nonplant specific expense accounts by the average number of lines in service. Then, in order to calculate the portion of this per-line expense attributable to loops, we developed the following ratio: we divided the total loop investment (i.e., the sum of all ARMIS accounts relating to loop investment) by the total regulated investment for the entire company. We then applied this ratio to the per-line non-plant specific monthly expenses to determine the portion of those expenses attributable to loops on a per-line basis. Finally, we added the amounts for loop-specific expenses and non-plant specific expenses attributable to loops to determine the total monthly operating expenses associated with each loop. The monthly operating expenses for common transport were developed in the

¹ These expenses are recorded in ARMIS 43-03, rows 6110, 6120, 6510, 6530, 6610, 6710, and 6720.

same manner by adding the common transport specific expenses and a portion of nonplant specific expenses attributable to transport.

- 15. We calculated the expenses for switching in much the same way as we did for loops. As with loops, we first identified all accounts corresponding solely to switching expenses and then divided the amount in these accounts by the average number of switched access lines to get a per-line annual switching expense. We then divided by twelve to get the monthly expense. To determine the monthly portion of the non-plant specific expenses associated with switching, similar to loops, we took the per line non-plant specific monthly expenses calculated above and multiplied by the ratio of total switching investments to the total regulated investment of the company. Finally, we added the switching-specific expenses and non-plant specific expenses attributable to switching to determine the total monthly operating expenses associated with switching on a per-line basis.
- We accounted for the cost of uncollectibles in our study by including the total annual company-wide uncollectible figure reported in ARMIS as part of the calculations of non-plant specific monthly expenses that were then attributed either to loops, transport, or switching, as explained above. The ARMIS data in fact greatly understate Verizon's costs associated with UNE-related uncollectibles because the company-wide ARMIS uncollectibles figure reflects the much lower uncollectibles rates associated with retail and other services. The uncollectibles associated specifically with the provision of UNEs are substantially higher than the effective uncollectible rate used in this study. For example, in supplemental testimony filed by Verizon in the Virginia arbitration proceeding, we demonstrated that the average level of uncollectibles for 2001

and 2002 was approximately 11.8% in Verizon-East (the former Bell Atlantic jurisdictions) and was 25.82% in Virginia.

- depreciation, the cost of debt and equity, and income taxes. To determine the depreciation annual cost factor in this study, we took the total annual depreciation expense reported in ARMIS for 2002 and divided this number by the total plant in service (including plant held for future telecommunication use) investment for all regulated company assets. This represents the percentage of total investment that is depreciated annually. Using this approach to calculate the depreciation factor is a conservative assessment of Verizon's actual depreciation cost, because the ARMIS depreciation expense is based on the regulatory lives prescribed by the FCC, which tend to be longer than the true economic lives reflected by Generally Accepted Accounting Principles ("GAAP").
- We used the FCC's prescribed 11.25% as the cost of capital (including the FCC-prescribed components for cost of debt and cost of equity). Because the FCC has stated that the 11.25% figure represents an appropriate *starting* place for the cost of capital, this figure is also quite conservative. In fact, the more appropriate figure would be at least the cost of capital that Verizon uses for financial evaluation purposes, which is the absolute *minimum* figure that should be used in assessing the TELRIC cost of capital. The cost of capital associated with providing UNEs should be even higher, because it should include an additional risk premium designed to account for some of the risks inherent in the UNE and TELRIC regime. Obviously, including that risk premium in this study would result

in a higher cost than what we report here. After calculating the cost of debt and equity, we then determined the cost of capital including taxes assuming Verizon's actual federal corporate tax rate of 35% (prior to credits and adjustments) and the applicable state income tax rate, adjusted for federal income tax deductibility.

- and tax costs associated with Verizon's unrecovered historical investment were taken into account. We did this by applying a net-to-book ratio to the total plant in service investment base, so that only capital costs associated with the company's undepreciated investment base are considered. To determine the net-to-book ratio, we subtracted the total accumulated depreciation and net deferred income taxes (reported in ARMIS) from total plant in service, and then divided that number by the total plant in service number.
- 20. Calculation of Verizon's Recurring Monthly Cost to Provide a UNE Loop and a UNE-P. To calculate Verizon's recurring monthly cost to provide a UNE loop, Verizon applied the capital cost factor to the total per-loop investment calculated above and then divided that number by twelve to determine the recurring monthly loop capital cost. We then added this number to the monthly per-loop operating expense figure calculated as described above to determine the total monthly cost for a loop. We then had to determine how much of this cost was attributable to wholesale (as opposed to retail) activities. To do this, we multiplied the avoided cost discount percentage² by

² The resale discount percentage used in our study — 15% — corresponds with resale discount rates set by state commissions using the appropriate "avoided" cost standard and, in fact, is a conservative estimate. See Opinion Approving Arbitrated Agreement, Petition of AT&T Comm. of California, Inc. for Arbitration Pursuant to Section 252 of the Federal Telecommunications Act of 1996 to Establish an Interconnection Agreement with GTE California, Inc., No. 97-01-022 at *9 (Cal. Pub. Util. Comm. 1997) (approving a 12% resale discount rate); Petitions by AT&T

Verizon's total regulated revenues (after subtracting out the categories of revenue that are not associated with any retail activities) and then divided this number by the average number of lines and then by twelve to arrive at a monthly retail avoided cost per UNE loop. We subtracted this amount from the total monthly cost for a loop to arrive at a monthly wholesale cost per loop. We then had to calculate how much of this cost was properly attributable to recurring as opposed to non-recurring costs. To do this, we took the total wholesale non-recurring revenues in each year as a proxy for non-recurring costs, divided that by the average number of UNE loops and UNE-platforms in the corresponding year, and subtracted that per-line amount from the total per-loop wholesale cost.

21. According to the study, Verizon's monthly recurring costs to provide a UNE loop in New York, Massachusetts, Pennsylvania, and New Jersey are as follows:²

Communications of the Southern States, Inc., MCI Telecommunications Corp. and MCI Metro Access Transmission Services, Inc., for Arbitration of Certain Terms and Conditions of a Proposed Agreement with GTE Florida Inc. Concerning Interconnection and Resale Under the Telecomm. Act of 1996, Order No. PSC-97-0064-FOF-TP at 77 (Fl. P.S.C. Jan 17, 1997) (adopting a 13.04% resale discount).

Verizon performed a similar historical cost study for the former Bell Atlantic portion of Virginia, which is described in my supplemental testimony submitted in the Virginia arbitration in April 2003 and in my declaration in support of Verizon's motion for stay submitted in September 2003. See Supplemental Testimony of Patrick A. Garzillo, filed with Verizon Virginia's Proffer of Supplemental Evidence, Petition of WorldCom, Inc. Pursuant to Section 252(e)(5) of the Communications Act for Preemption of the Jurisdiction of the Virginia State Corporation Commission Regarding Interconnection Disputes with Verizon Virginia, Inc., and for Expedited Arbitration, et al., CC Docket Nos. 00-218, 00-249 and 00-251 ("Virginia Arbitration Proceeding")(filed with the FCC Apr. 15, 2003); Declaration of Patrick A. Garzillo, filed with Verizon Virginia's Motion for Stay, Virginia Arbitration Proceeding (filed with the FCC Sep. 29, 2003). As I explained there, those studies demonstrated that the failure to set rates based on actual forward-looking costs results in a significant cost recovery shortfall for every UNE loop and UNE-P provided by Verizon.

UNE-LOOP RECURRING MONTHLY COSTS

NY	MA	PA	NJ
\$32.32	\$27.31	\$20.53	\$20.58

Attachment A at 3.

- 22. To calculate Verizon's recurring monthly cost to provide a UNE-P, we added the recurring cost of the loop (above) to the recurring costs for switching and for common transport. To develop these costs, we followed procedures similar to those for developing loop costs. We first applied the capital cost factor to the total per-line investment relating to switching (described above) and then divided that number by twelve to determine the monthly per-line capital cost associated with switching. We then added this number to the monthly per-line operating expense figure associated with switching to calculate the per-line monthly cost to provide switching.
- 23. We determined the per-line costs associated with transport by multiplying the common transport investment by the capital factor previously discussed, and dividing by twelve to derive the monthly costs. We then added the monthly common transport expenses determined above, to determine the per-line total cost. Finally, to determine Verizon's monthly cost to provide a UNE-P, we summed the loop costs, switching costs, and transport costs to get a recurring monthly UNE-P cost. Recurring monthly costs for New York, Massachusetts, Pennsylvania, and New Jersey are as follows:

UNE-P RECURRING MONTHLY COST

NY	MA	PA	NJ
\$47.48	\$43.29	\$30.93	\$30.36

Attachment A at 3.

- 24. Since we identified the avoided retail costs and the non-recurring costs on a per-line basis, excluding them from loop costs as described above automatically excluded them from the UNE-P costs since all UNE-platforms contain an unbundled loop.
- 25. Shortfall Analysis. We used the monthly recurring costs calculated above to determine the amount of shortfall Verizon has incurred as a result of the UNE rates set by state commissions pursuant to TELRIC. As a first step in the analysis, we compared Verizon's monthly costs for a UNE-loop and a UNE-P in each state with the respective TELRIC rates set by the state commissions. Below I describe the history of the TELRIC rates set by state commissions in New York, Massachusetts, Pennsylvania, and New Jersey that we used in our study.
- 26. History of New York TELRIC Rates. In 1997, based on the FCC's TELRIC rules, the New York Public Service Commission set a statewide average UNE loop rate of \$14.52 and a switching rate of \$0.003150, resulting in a statewide average UNE-P rate of \$26.43.4 See AT&T Comm. of New York, Inc., Opinion and Order Setting

⁴ See AT&T Comm. of New York, Inc., Opinion and Order Setting Permanent Rate Levels for the Sale by an Incumbent Telephone Local Exchange Carrier (LEC) of Unbundled Network Elements to Competing Carriers, Case Nos. 95-C-0657, 94-C-0095, 91-C-1174, Op. No. 97-2 (April 1, 1997). The platform revenues were developed based on the following assumptions. Monthly average usage was developed by dividing year 2000 Dial Equipment Minutes (DEMs), reported in ARMIS 43-04, row 1216 by the 1999-2000 year-end average of switched lines as reported in ARMIS 43-07, row 120 and dividing the result by 12. Year 2000 usage was used as it represents the last full year of reported DEMs data in ARMIS. The following usage assumptions were utilized for all state jurisdictions studied: (1) 50%/50% split between originating and terminating minutes; (2) 80% of all minutes were local calls, 5% of the minutes were toll calls, and 15% of the minutes were long distance calls; (3) 35% of all originating local minutes were intra switch calls, except in Massachusetts where 54% was used; 20% of all transported minutes traveled via the tandem; (4) holding time per call was 6 minutes. In addition, in those states where separate rate elements were approved, revenues for

Permanent Rate Levels for the Sale by an Incumbent Telephone Local Exchange Carrier (LEC) of Unbundled Network Elements to Competing Carriers, Case Nos. 95-C-0657, 94-C-0095, 91-C-1174, Op. No. 97-2 (April 1, 1997). The FCC and the D.C. Circuit found that these rates complied with TELRIC.⁵ In 2002, the New York PSC lowered the statewide average loop rate to \$11.49, and the switching rate to \$0.001147 per originating minute and \$0.001111 per terminating minute, resulting in a statewide average UNE-P rate of \$18.49. See Proceeding on Motion of the Commission to Examine New York Telephone Company's Rates for Unbundled Network Elements, Order on Unbundled Network Element Rates, Case No. 98-C-1357 (January 28, 2002). Attachment A at 6.

27. History of Massachusetts TELRIC Rates. The Massachusetts DTE set initial rates for UNEs in 1997. The DTE set a statewide average loop rate of \$14.98, a port rate of \$2.00 and an average switching rate of \$0.007503 per minute, which resulted in a statewide average platform rate of \$35.62. In November 2000, while Verizon's section 271 application for Massachusetts was pending before the FCC, Verizon had to reduce the switching rates in Massachusetts to an average composite rate of \$0.003637 in

features (call waiting, caller ID with name, and three-way calling), OSS, SS7 signaling, and Daily Usage File (DUF) were added to the loop, switching, and transport costs to develop the monthly UNE-platform revenue.

⁵ Memorandum Opinion and Order, Application by Bell Atlantic New York for Authorization Under Section 271 of the Communications Act to Provide In-Region, InterLATA Service in the State of New York, Memorandum Opinion and Order, 15 FCC Rcd 3953, 4084 (1999), aff'd sub. nom. AT&T Corp. v. FCC, 220 F.3d 607 (D.C. Cir. 2000).

⁶ See Consolidated Petitions of New England Telephone Company d/b/a NYNEX, Teleport Communications Group, Inc., Brooks Fiber Communications, AT&T Communications of New England, Inc., MCI Communications Company, and Sprint Communications Company, L.P., Pursuant to Section 252(b) of the Telecommunications Act of 1996, for Arbitration of Interconnection Agreements Between NYNEX and the Aforementioned Companies, Order, DPU 96-73/74, 96-75, 96-80/81, 96-83, 96-94 (Phase 4-D) (MA DPU June 27, 1997).

order to satisfy the FCC's benchmark test.² This resulted in a platform rate of \$26.46. The FCC found those rates TELRIC-compliant in April 2001.⁸ The D.C. Circuit subsequently upheld that determination.⁹ In June 2002, during a Commission complaint proceeding, Verizon was required to reduce the switching rates in Massachusetts further in order to satisfy a new benchmark based on newly adopted rates in New York.¹⁰ These rates were subject to true-up to rates set by the DTE. In June 2003, the DTE completed a second-generation proceeding in which it adopted new rates.¹¹ Pursuant to that decision, the new statewide average loop rate in Massachusetts is \$13.93 and the new switching

² See Reply Declaration of Steven E. Collins ¶¶ 4-5, Application by Verizon New England Inc., Bell Atlantic Communications, Inc. (d/b/a Verizon Long Distance), NYNEX Long Distance Company (d/b/a Verizon Enterprise Solutions), and Verizon Global Networks Inc., for Authorization To Provide In-Region, InterLATA Services in Massachusetts, CC Docket No. 00-176 (FCC filed Nov. 3, 2000).

⁸ See Application of Verizon New England Inc., et al., For Authorization to Provide In-Region, InterLATA Services in Massachusetts, Memorandum Opinion and Order, 16 FCC Rcd 8988 ¶ 20 (2001).

² See WorldCom, Inc. v. FCC, 308 F.3d 1 (D.C. Cir. 2002).

¹⁰ See WorldCom, Inc., Complainant, v. Verizon New England, Inc., Bell Atlantic Communications, Inc. (dba Verizon Long Distance), NYNEX Long Distance Company (dba Verizon Enterprises Solutions), and Verizon Global Networks, Inc., Defendants, Memorandum Opinion and Order, 17 FCC Rcd 15115, ¶ 13 (2002).

¹¹ See Investigation by the Department of Telecommunications and Energy on Its Own Motion into the Appropriate Pricing, Based upon Total Element Long-Run Incremental Costs, for Unbundled Network Elements and Combinations of Unbundled Network Elements, and the Appropriate Avoided Cost Discount for Verizon New England, Inc. d/b/a Verizon Massachusetts' Resale Services in the Commonwealth of Massachusetts, Order, DTE 01-20 (MA DTE July 11, 2002); Investigation by the Department of Telecommunications and Energy on Its Own Motion into the Appropriate Pricing, Based upon Total Element Long-Run Incremental Costs, for Unbundled Network Elements and Combinations of Unbundled Network Elements, and the Appropriate Avoided Cost Discount for Verizon New England, Inc. d/b/a Verizon Massachusetts' Resale Services in the Commonwealth of Massachusetts, Order Granting Verizon and AT&T Motions for Reconsideration, in Part, and Requesting Additional Evidence, DTE 01-20 (MA DTE Sept. 24, 2002).

rate is \$0.000825 per originating minute and \$0.000724 per terminating minute, resulting in a statewide average platform rate of \$18.94. Attachment A at 6.

established UNE rates in August 1997 that it found were TELRIC-compliant.¹² The PUC established a statewide average loop rate of \$16.78, a port rate of \$2.67, and a switching rate of \$0.011067 per originating minute and \$0.006143 per terminating minute, resulting in a statewide average platform rate of \$37.38. In September 1999, following additional proceedings, the PUC established a new statewide average loop rate of \$14.50 (which was set to decrease, and did decrease, to \$13.81 effective May 2001¹³), a new port rate of \$1.90, and a new switching rate of \$0.001802 per originating minute and \$0.001615 per terminating minute, resulting in a new statewide average platform rate of \$21.47 (which decreased to \$20.00 in May 2001).¹⁴ The FCC found these rates TELRIC-compliant in

Order, Docket Nos. A-310203F0002, et al. (PA PUC Aug. 7, 1997); Application of MFS Intelenet of Pennsylvania, et al., Interim Order, Docket Nos. A-310203F0002, et al. at 13 (PA PUC Apr. 10, 1997) ("inasmuch as we have consistently used or required the use of the FCC's TELRIC methodology throughout the several phases of this proceeding, we will continue to use TSLRIC as a tool to evaluate the proposals before us and view the FCC Order as instructive in the proper application of a long-run incremental cost methodology."). A federal district court remanded the PUC's decision to clarify whether it followed the FCC's TELRIC rules. The district court did not review the substance of the order, but decided the case solely on the fact that the PUC called its methodology "TSLRIC" rather than "TELRIC." MCI Telecomms. Corp. v. Bell Atlantic-Pennsylvania, Inc., No. 97-CV-1857 (M.D. Pa. 2000). The Third Circuit reversed and remanded the district court's decision. See MCI Telecomms. Corp. v. Bell Atlantic-Pennsylvania, Inc., 271 F.3d 491, 522 (3d Cir. 2001).

¹³ See Verizon Pennsylvania Inc., Services for Other Telephone Companies, PA PUC Tanff No. 216 § 3.C.1(a).

¹⁴ See Joint Petition of NextLink Pennsylvania, Inc., et al., Opinion and Order, Docket Nos. P-00991648, et al. (Pa. PUC Sept. 30, 1999), aff'd, 763 A.2d 440 (Pa. Commw. Ct. 2000).

September 2001 ¹⁵ The Pennsylvania PUC is now nearing completion of a third-generation pricing proceeding. In our study, we used the rates filed in compliance with the tentative order released by the Pennsylvania PUC in this proceeding, ¹⁶ assuming for the purposes of our study that those rates will go into effect on March 1, 2004. ¹⁷

29. History of New Jersey TELRIC Rates. The New Jersey BPU initially established UNE rates in December 1997 that it found were TELRIC-compliant. The BPU established a statewide average loop rate of \$16.21, a port rate of \$1.90, and a switching rate of \$0.005418 per originating minute and \$0.003207 per terminating minute, resulting in a statewide average UNE-P rate of \$27.32. In June 2000, the BPU opened a new pricing proceeding. In December 2001, the BPU adopted a statewide average loop rate of \$9.52, a port rate of \$0.73, and a switching rate of \$0.002773 per

¹⁵ See Application of Verizon Pennsylvania Inc., et al. for Authorization To Provide In-Region, InterLATA Services in Pennsylvania, Memorandum Opinion and Order, 16 FCC Red 17419, ¶ 55 (2001).

¹⁶ See Tentative Order, Generic Investigation re Verizon Pennsylvania Inc.'s Unbundled Network Element Rates, R-00016683 (Pa. Pub. Util. Comm. Nov. 4, 2002).

¹⁷ These rates do not reflect the final order released by the Pennsylvania PUC on December 11, 2003. See Final Opinion and Order, Generic Investigation re Verizon Pennsylvania Inc.'s Unbundled Network Element Rates, R-00016683 (Pa. Pub. Util. Comm. Dec. 11, 2003).

¹⁸ See Investigation Regarding Local Exchange Competition for Telecommunications Services, Order Regarding Interconnection and Resale, Docket No. TX95120631 (NJ BPU Dec. 2, 1997); id. at 9 ("[T]he parties to this phase of this proceeding agree the proper basis for setting rates for interconnection and unbundled elements contemplates the use of a long-run incremental cost methodology . . . [Therefore] the Board HEREBY ADOPTS the principles upon which the FCC's TELRIC model is based.").

¹⁹ AT&T and WorldCom appealed the rates set by the New Jersey BPU. See AT&T Communications v. New Jersey, Inc. v. Bell Atlantic-New Jersey, Inc., Nos. 97-5762 & 98-0109, slip. op. (D.N.J. June 6, 2000). The court remanded the BPU's decision on the ground that it had not provided sufficient explanation for the cost model it adopted, but did not reach the question whether the actual rates set by the BPU complied with TELRIC. See id. at 27-28, 31.

originating minute and \$0.002508 per terminating minute, resulting in a statewide average platform rate of \$16.32.\frac{20}{2}\$ The FCC found these rates TELRIC-compliant in June 2002.\frac{21}{2}\$ In April 2002, AT&T and WorldCom filed a petition for reconsideration of the BPU's order. In September 2002, the BPU issued an order on reconsideration that further lowered the switching rates, to \$0.001203 per originating minute and \$0.001171 per terminating minute, resulting in a statewide average platform rate of \$14.77.\frac{22}{2}\$

* * *

30. Once we had determined the difference between Verizon's monthly costs for providing UNE-loops and UNE-platforms and the monthly revenues it received for providing UNE-loops and UNE-Ps, respectively, we computed the total annual shortfall between Verizon's actual costs and the adopted TELRIC rates for the years 1997 through 2003. To do this, we first calculated the annual per-UNE loop and per-UNE-P shortfalls for each year by multiplying the monthly recurring shortfall by twelve. For the years in which two different UNE rates were in effect, we multiplied each of the two monthly recurring shortfalls by the number of months during which the corresponding UNE rate was in place, and then added those two numbers to calculate that year's per-UNE loop and per-UNE-P shortfall. Next, we multiplied the annual loop and UNE-P shortfall

²⁰ See Review of Unbundled Network Element Rates, Terms and Conditions of Bell Atlantic New Jersey, Inc., Board Meeting Transcript, Docket No. TO00060356 (NJ BPU Nov. 20, 2001); Review of Unbundled Network Elements Rates, Terms and Conditions of Bell Atlantic New Jersey, Summary Order of Approval, Docket No. TO00060356 (NJ BPU Dec. 17, 2001).

²¹ See Application by Verizon New Jersey Inc., et al., for Authorization To Provide In-Region, InterLATA Services in New Jersey, Memorandum Opinion and Order, 17 FCC Rcd 12275, ¶ 18 (2002).

²² Review of Unbundled Network Elements Rates, Terms and Conditions of Bell Atlantic - New Jersey, Inc., Order on Reconsideration, Docket No. TO00060356 (NJ BPU Sept. 13, 2002).

amounts for each year by the average number of UNEs provided in that year.

Accordingly, these shortfalls are based on actual UNE-loop and UNE-P volumes. The calculations for 2003 are based on actual UNE-loop and UNE-P volumes from January through September, and projected volumes for October through December. As explained in more detail below, the projected volumes we used are based on historical growth trends from 1997 through September 2003. The results of these calculations are displayed below. Data and calculations supporting these results are provided in Attachment A at 1-2.

TOTAL ANNUAL SHORTFALLS BASED ON ACTUAL VOLUMES OF UNES

YEAR	NY	MA	PA	NJ
1997	\$3,620,918		\$81,764	
1998	\$7,906,873		\$915,537	
1999	\$43,796,404	\$1,133,661	\$2,486,095	\$169,291
2000	\$294,042,048	\$7,518,790	\$10,446,637	\$1,083,994
2001	\$500,325,548	\$25,760,804	\$37,175,230	\$4,446,971
2002	\$712,655,602	\$39,113,011	\$60,961,887	\$33,832,637
2003	\$863,892,321	\$71,965,567	\$76,742,244	\$135,801,882
Total	\$2,426,239,714	\$145,491,833	\$188,809,394	\$175,334,775

31. Next, we projected the potential shortfalls for 2004 and 2005 that Verizon may suffer if the TELRIC methodology is not reformed. To do this, we looked at the monthly UNE loop and UNE-P volumes for each state from 1997 through September 2003, and determined the historical growth trends for UNE loops and UNE-Ps during that period. We then used that information to project estimated demand for UNE loops and UNE-Ps in each state. In calculating these projections, we did not try to account for price reductions that are set to take effect, or for market conditions or other factors that may affect UNE loop and UNE-P volumes. Assuming that Verizon's monthly recurring costs

stay the same over the next several years, at the TELRIC rates currently in place or set to take effect, the annual shortfall in New York, Massachusetts, Pennsylvania, and New Jersey by 2005 will be enormous. Attachment A at 1-2.

POTENTIAL ANNUAL SHORTFALLS BASED ON PROJECTED VOLUMES OF UNES

Year	NY	MA	PA	NJ
2004	\$954,578,763	\$117,310,480	\$67,992,287	\$200,900,550
2005	\$1,003,377,766	\$137,557,001	\$68,074,725	\$235,634,463
Total	\$1,957,956,529	\$254,867,481	\$136,067,012	\$436,535,013

- 32. As further evidence that TELRIC rates are not sufficiently compensatory, we looked at the effect of rates set by state commissions under the Commission's TELRIC rules on Verizon's rates of return. These data clearly demonstrates that as TELRIC rates have dropped, and UNE volumes have increased, Verizon's returns have rapidly declined. In particular, our analysis shows that when state commissions lower UNE rates pursuant to TELRIC, these rate reductions adversely affect Verizon's rates of return in two significant ways. First, the revenue that Verizon receives from a carrier that purchases a UNE-P line at the below-cost TELRIC rates set by the state commission is significantly less than Verizon receives from a retail customer. Indeed, although Verizon's costs for each line remain the same (other than avoided retail costs), its revenues for that line are reduced dramatically. Second, as a result of UNE rate reductions, UNE loop and UNE-P growth accelerates rapidly, thus compounding Verizon's revenue loss.
- 33. We examined the negative impact of TELRIC rate reductions and UNE growth both on Verzon's total regulated rates of return, and on its intrastate rates of return. The intrastate rates of return are particularly revealing as to the impact of below-

cost UNE rates because, when Verizon is required to lease one of its retail lines to its competitor as a UNE, it loses the retail revenues associated with that line, the vast majority of which are accounted for as intrastate revenues. Indeed, Verizon loses intrastate revenues from local service, toll, vertical services, and intrastate access, while retaining nearly all of the costs for UNEs, approximately 75% of which are accounted for in intrastate returns.

34. To determine the effect of TELRIC rates on Verizon's intrastate rate of return in each state, we looked at Verizon's ARMIS reported net return and net investment. We subtracted the interstate net return and interstate investment from the "subject to separations" net return and investment, respectively. The differences were the calculated intrastate net return and intrastate investment. We then calculated the ratio of the intrastate net return to intrastate investment to determine the return on an intrastate basis²³ in New York, Massachusetts, Pennsylvania, and New Jersey, as shown in Attachment B, in conjunction with the number of UNEs Verizon provided each year in those states. This analysis clearly demonstrates the impact TELRIC rates and UNE growth have had on Verizon's rates of return. For example, in New York, as UNE-P growth first started to accelerate in 1999, Verizon's total regulated and intrastate rates of return began to plummet. Attachment B at 1. Indeed, as UNE-Ps grew from fewer than 400,000 at year-end 1999 to over 2 million at year-end 2002, Verizon's total regulated rate of return dropped from over 7% to approximately 0.75%, and its intrastate rate of return dropped from approximately 8.5% to under 1%. Id.

Because there is no intrastate rate of return data recorded in ARMIS, we calculated Verizon's intrastate rates of return using the same methodology used by the FCC to calculate interstate rates of return.

- 35. Although other states ordered TELRIC rate reductions and saw the resulting acceleration of UNE-P growth a few years after New York, the same trend of plummeting returns is clearly emerging. For example, in Massachusetts, as a result of drastic rate reductions that took effect in 2000 and 2002, UNE-Ps grew from under 2,400 at the end of 1999 to over 100,000 by the end of 2002. Id. And during this period, Verizon's total regulated rate of return dropped from over 12% to under 4%, and its intrastate rate of return fell from nearly 11% to under 2%. Id. Similarly, as UNE-Ps grew in Pennsylvania from 0 to more than 380,000 between 1999 and 2002 due to rate reductions that took effect in 1999, 2000, and 2001, Verizon's total regulated rate of return dropped from more than 13% to approximately 12.5%, and its intrastate rate of return dropped from over 11% to approximately 7.25%. Id. In New Jersey, as UNE-Ps increased from under 37,000 in 2001 to over 405,000 in 2002 as a result of rate reductions in 2001 and 2002, Verizon's total regulated rate of return dropped from over 16% to approximately 13.5% and its intrastate rate of return fell from nearly 15% to approximately 9.25%. Id. In fact, these calculations understate the impact of TELRIC rates on Verizon's rates of return because they do not account for the accelerated UNE growth that has occurred since the end of 2002. For example, between year-end 2002 and year-end 2003, the total number of UNE-Ps more than doubled in Massachusetts, and more than tripled in New Jersey. See Attachment A at 14, 15.
- 36. We also looked at the impact of UNE-P market share growth on Verizon's total net income from regulated businesses. To perform this analysis, we looked at Verizon's reported net income for 2002 from ARMIS and the annual per-UNE-P shortfall between the TELRIC rates most recently adopted and Verizon's UNE-P cost calculated

as described above. We used this data to calculate the number of lines that would have to be sold as UNE-Ps before Verizon's net income from regulated businesses dropped to zero. This analysis demonstrates that if UNE-P growth rates continue to accelerate, net income will be severely reduced over time. For example, in New York, if Verizon leased approximately 2,240,000, or 20%, of its total switched lines as UNE-Ps — that is, fewer than 200,000 more UNE-P lines than CLECs took as of year-end 2002 — its net income from regulated businesses would drop to zero. Attachment A at 7, 14, 18. Similarly, in Massachusetts, if CLECs leased only approximately 13% of Verizon's total switched access lines at the UNE-P rates recently set by the Massachusetts DTE, Verizon's net income would be driven to zero. *Id.* at 7, 14, 15. As explained above, these calculations in fact understate the actual impact of UNE-P growth on Verizon's net income because they do not reflect the surge in UNE-P growth that has occurred as a result of recent rate reductions.

37. Shortfall Between TELRIC Rates and Verizon's Actual Forward-Looking Costs. The rates set by state commissions pursuant to TELRIC do not even allow Verizon to recover its actual forward-looking costs. To determine the total shortfall produced by TELRIC rates compared to Verizon's actual forward-looking costs, we performed similar calculations to those we performed in our shortfall analysis relating to Verizon's historical costs. We calculated the per-line shortfalls by comparing the TELRIC rates most recently set by state commissions with the forward-looking rates based on a correctly calculated TELRIC methodology proposed by Verizon in those proceedings. Although Verizon's proposed rates in those cases understate Verizon's actual forward-looking costs because they were developed under the constraints of the

TELRIC rules, they at least provide a conservative proxy for these costs. We then applied these shortfalls to UNE loop and UNE-P volumes for 2002-2005, as we did in the historical cost analysis, to determine the total annual shortfalls produced by state commissions' TELRIC rates. These calculations demonstrate that the TELRIC rates adopted by state commissions are significantly below the rates proposed by Verizon in those proceedings, and thus prevent Verizon from recovering even a conservative measure of its forward-looking costs in providing UNEs. For example, the shortfalls produced by the TELRIC rates range from more than \$148 million in Massachusetts over 4 years to more than \$1.2 billion in New York over that same time frame. See

- 38. As our study demonstrates, the UNE rates adopted by state commissions pursuant to the TELRIC methodology have not come close to compensating Verizon for its actual forward-looking costs and operating expenses associated with providing UNEs. Moreover, unless the TELRIC methodology is reformed, the shortfall between Verizon's actual forward-looking costs and revenues will only increase in the future, as the volume of UNEs purchased by CLECs grows.
 - 39. This concludes my declaration.

Declaration of Patrick A. Garzillo

I declare under penalty of perjury that the foregoing is true and correct.
Executed this 16 day of December, 2003.

Petrick A. Garzillo